

WHAT IS CLAIMED IS:

- 1                   1.       A locking assembly for coupling a first member including a receiving  
2   area, and a second member having a receiving region, the locking system comprising:
  - 3                   (a)       an interference element including an interfering portion that is received  
4   within the receiving area of the first member when the locking system couples the first  
5   member and the second member together;
  - 6                   (b)       a biasing element;
  - 7                   (c)       a cam, wherein the cam is adapted to cause the biasing element to be in  
8   a biased position or an unbiased position; and
  - 9                   (d)       a wedge shaped structure, wherein the wedge shaped structure is  
10   configured to be received in the receiving region of the second member, and wherein  
11   movement of the wedge shaped structure in a first direction moves the interfering portion of  
12   the interference element into the receiving area of the first member and wherein movement of  
13   the wedge shaped structure in a second direction causes the interfering portion of the  
14   interference element to move out of the receiving area of the first member.
- 1                   2.       The locking assembly of claim 1 wherein the first member is a tooth  
2   and the second member is an adapter.
- 1                   3.       The locking assembly of claim 1 wherein the cam includes a main  
2   portion including a recess and a pin coupled to the main portion.
- 1                   4.       The locking assembly of claim 1 further comprising a plunger between  
2   the biasing element and a portion of the wedge shaped structure.
- 1                   5.       The locking assembly of claim 1 wherein the interference element  
2   includes a sealing portion.
- 1                   6.       The locking assembly of claim 1 further comprising an o-ring around a  
2   main portion of the cam.

1                    7.        A locking system comprising:  
2                    (a)        a first member including a receiving area;  
3                    (b)        a second member including a receiving region; and  
4                    (c)        a locking assembly for coupling the first member and the second  
5 member having a receiving region, wherein the locking system comprises (i) an interference  
6 element including an interfering portion that is received within the receiving area of the first  
7 member when the locking assembly couples the first member and the second member  
8 together, (ii) a biasing element, (iii) a cam, wherein the cam is adapted to cause the biasing  
9 element to be in a biased position or an unbiased position, and (iv) a wedge shaped structure,  
10 wherein the wedge shaped structure is configured to be received in the receiving region of the  
11 second member, and wherein movement of the wedge shaped structure in a first direction  
12 moves the interfering portion of the interference element into the receiving area of the first  
13 member and wherein movement of the wedge shaped structure in a second direction causes  
14 the interfering portion of the interference element to move out of the receiving area of the  
15 first member.

1                    8.        The locking system of claim 7 wherein the first member is a tooth and  
2 the second member is an adapter.

1                    9.        The locking system of claim 7 wherein the cam includes a main  
2 portion including a recess and a pin coupled to the main portion.

1                    10.       The locking system of claim 7 comprising a plunger between the  
2 biasing element and a portion of the wedge shaped structure.

1                    11.       The locking assembly of claim 7 wherein the interference element  
2 includes a sealing portion.

1                    12.       The locking assembly of claim 7 further comprising an o-ring around a  
2 first portion of the cam.

1                    13.    A method of using a locking system comprising:  
2                    (a)    obtaining a first member including a receiving area;  
3                    (b)    obtaining a second member including a receiving region; and  
4                    (c)    using a locking assembly to couple the first and second members  
5 together, wherein the locking assembly comprises (i) an interference element including an  
6 interfering portion that is received within the receiving area of the first member when the  
7 locking system couples the first member and the second member together, (ii) a biasing  
8 element, (iii) a cam, wherein the cam is adapted to cause the biasing element to be in a biased  
9 position or an unbiased position, and (iv) a wedge shaped structure, wherein the wedge  
10 shaped structure is configured to be received in the receiving region of the second member,  
11 and wherein movement of the wedge shaped structure in a first direction moves the  
12 interfering portion of the interference element into the receiving area of the first member and  
13 wherein movement of the wedge shaped structure in a second direction causes the interfering  
14 portion of the interference element to move out of the receiving area of the first member.

1                    14.    The method of claim 13 wherein the first member is a tooth and the  
2 second member is an adapter.

1                    15.    The method of claim 13 wherein the cam includes a main portion  
2 including a recess and a pin coupled to the main portion.

1                    16.    The method of claim 13 comprising a plunger between the biasing  
2 element and a portion of the wedge shaped structure.

1                    17.    The method of claim 13 wherein the interference element includes a  
2 sealing portion.

1                    18.    The method of claim 13 further comprising an o-ring around a first  
2 portion of the cam.